-continued

| | |
|---|---|
| 2+ | Moderate erythema |
| 3+ | Severe erythema |

A sufficient number of 5×10 cm test site areas are outlined with a surgical marking pen on the subject's back between the scapulae and the beltline, lateral to the midline. These areas are designated for the test material(s) or standard, with an adjacent site designated for a concurrent MED determination (unprotected control). A 0.1 ml or 0.1 g portion of test material(s) or standard is applied to the appropriate 5×10 cm test site and spread evenly over the site using a fingercot. This delivers a film of 2 mg/cm$^2$.

At least 15 minutes after the product application, the test site is divided into subsites which are used for a defined serial UVR exposure.

Exposure times are selected for each subsite in treated areas based upon the previously determined MED of the untreated skin and the anticipated SPF of the test material(s) or standard.

Sun protection factor is defined as the ratio of the amount of energy required to produce an MED on protected skin (treated with test material(s) or standard) to the amount of energy needed to produce an MED on untreated skin and is calculated as follows:

$$SPF = \frac{\text{Minimal Erythema Dose in sun-protected skin}}{\text{Minimal Erythema Dose in non-sunscreen-protected skin}}$$

To the extent necessary to understand or complete the disclosure of the present invention, all publications, patents, and patent applications mentioned herein are expressly incorporated by reference therein to the same extent as though each were individually so incorporated.

Having thus described exemplary embodiments of the present invention, it should be noted by those skilled in the art that the within disclosures are exemplary only and that various other alternatives, adaptations, and modifications may be made within the scope of the present invention. Accordingly, the present invention is not limited to the specific embodiments as illustrated herein, but is only limited by the following claims.

We claim:

**1**. A method of repelling an arthropod from a surface of a substrate, an area, or a mammal which comprises administering to, placing or immobilizing on or in, integrating on or in the surface, the area, or the mammal an effective amount of at least one compound selected from the group consisting of 2-bromo-1-(2,5-dimethoxy-phenyl)-ethanone, 2-methyl-1-(2,3,5,6-tetramethyl-phenyl)-propan-1-one, and 2-(2-chlorophenoxy)-2-methyl-propionamide.

**2**. The method of claim **1**, wherein the substrate is a fabric, an article of clothing, a bed net, a curtain, a paper, a wall paper, a window screen, a ground cloth, a tent, a towelette, or a protective overgarment.

**3**. The method of claim **1**, wherein the compound is formulated into a lotion, a cream, a foam, an aerosol, a face paint, or a stick.

**4**. The method of claim **1**, wherein the compound is integrated into a soap, a sunscreen product, or a cosmetic.

**5**. The method of claim **1**, wherein the compound is formulated with a pharmaceutically or cosmetically acceptable carrier.

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